

ABSTRACT

A method to reduce optical intensity modulation is described that involves generating a spiraling wave onto an acoustic-optic interaction portion of an optical fiber within an acousto-optic filter in order to create reflected waves that are orthogonal with respect to waves that are originally launched onto the interaction portion. A transducer is described having a first section and a second section. The first and second sections each have a polling direction along a first axis. The transducer also has a third section and a fourth section. The third and fourth sections each have a polling direction along a second axis. The third and fourth sections are each between the first and second sections. An acousto-optic filter having a horn with an elliptical cross section coupled to a transducer is also described. A transducer for an excitation element capable of launching spiraling acoustic waves is described.